



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,517	07/29/2003	Harry Mussman	5630/6	6058
29858	7590	12/14/2004	EXAMINER	
BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP			ELALLAM, AHMED	
900 THIRD AVENUE			ART UNIT	
NEW YORK, NY 10022			PAPER NUMBER	
			2662	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/629,517

Applicant(s)

MUSSMAN ET AL.

Examiner

AHMED ELALLAM

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 23 is objected to because of the following informalities:

Claim 23 is a duplicate of claim 21, claim 21 should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 24, the phrase "the origination endpoint comprises a PSTN endpoint" is confusing, because it is already stated in the base claim 20, that the origination endpoint is in a packet-switched network, it can't be in two different networks in the same time. Probably the phrase meant to say the "the destination endpoint comprises a PSTN endpoint" as disclosed in the specification.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the apparatus claim 20, the claimed "gatekeeper programmed to determine, according to selection criteria, whether to route a communication from the origination endpoint to the destination endpoint using at least a second circuit-switched network" is not in conformance with the supposedly corresponding claim 1 and the specification. Because the gateway in claim 1 performs the same function of the gatekeeper of claim 20, a doubt is raised to whether the claimed gatekeeper of claim 20 is erroneously claimed as such. However, if that were not the case, then 112 first paragraph rejections would be more appropriate.

Claims 21-40 depends from claim 20, thus they are subject to the same rejection.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-7, 20-29 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Karol et al, US (6,628,617).

Regarding claim 1, with reference to figure 1, Karol discloses a method for performing alternate routing of communications in a network comprising:

Source 101 in a CL network 111 (connection-less network) initiating a communication to a destination endpoint 151 (the CL network being IP network, see column 5, line 59-66), (claimed initiating a communication from an origination endpoint in a packet switched network to a destination endpoint); and

Deciding to whether set up a CO (connection oriented) connection at a CL-CO gateway 140 to route the communication to the destination endpoint through a CO network 160 based on traffic situation in the CL and CO networks. See column 2, line 1-19 and column 5, lines 23-38. (Claimed determining, according to selection criteria, whether to route the communication to the destination endpoint using at least a second circuit-switched network). (Examiner interpreted the traffic situation as being the claimed criteria).

Regarding claims 2 and 3, Karol discloses a source endpoint 101 is a source of datagrams (such as a personal computer, workstation, or other processor attached to any information source). See column 4, lines 36-40. Wherein the personal computer can be an Internet telephony PC. See column 17, lines 1-7. (Claimed initiating a VoIP communication as in claim 2, and initiating a communication from a VoIP endpoint, as in claim 3).

Regarding claim 4, with reference to figure 1, Karol shows that source endpoint 101 belongs to a CL (IP network). See column 5, line 59-66 and column 17, lines 1-7. (Claimed initiating a communication from an origination endpoint in a packet-switched network comprises initiating a communication from an origination endpoint in a VoIP network).

Regarding claim 5, Karol shows that the destination 151 is similar to the source endpoint, thus by symmetry the destination endpoint 151 is interpreted as being a VoIP endpoint, since it is connected to a CL network 130). (Claimed initiating a communication to a destination endpoint comprises initiating a communication to a VoIP endpoint).

Regarding claim 6, with reference to figure 11, Karol shows that the endpoint is directly attached to CO network, In addition Karol discloses a telephone connected to an STM (Synchronous Transfer Mode) network, see also column 17, lines 5-7. (Claimed initiating a communication to a PSTN endpoint).

Regarding claim 7, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140, based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38. (Examiner interpreted the traffic situation in the CL and CO as being the claimed determining comprises determining according to available bandwidth criteria, because the state traffic is directly related to available bandwidth).

Regarding claims 19 and 40, Karol discloses routing a call over an STM network using a DS0 circuit over the CO network. (Claimed the second circuit-switched network comprises routing the communication using PSTN).

Regarding claim 20, with reference to figure 1, Karol discloses a method for performing alternate routing of communications in a network comprising:

An originating endpoint in a CL network 101, (claimed an originating endpoint in a packet-switched network);

A destination endpoint 151;

Source 101 in a CL network 111 (connection-less network) initiating a communication to a destination endpoint 151 (the CL network being IP network, see column 5, line 59-66), (claimed initiating a communication from an origination endpoint in a packet switched network to a destination endpoint); and

Deciding to whether set up a CO (connection oriented) connection at a CL-CO gateway 140 to route the communication to the destination endpoint through a CO network 160 based on traffic situation in the CL and CO networks. See column 2, line 1-19 and column 5, lines 23-38. (Claimed a gatekeeper programmed to determine, according to selection criteria, whether to route a communication from the origination endpoint to the destination endpoint using at least a second circuit-switched). (Examiner interpreted the traffic situation as being the claimed criteria).

Regarding claims 21 and 23, Karol discloses a source endpoint 101 is a source of datagrams (such as a personal computer, workstation, or other processor attached to any information source). See column 4, lines 36-40. Wherein the personal computer can

be an Internet telephony PC. See column 17, lines 1-7. (Claimed the origination endpoint comprises a VOIP endpoint).

Regarding claim 22, with reference to figure 1, Karol shows that source endpoint 101 belongs to a CL (IP network). See column 5, line 59-66 and column 17, lines 1-7. (claimed wherein the packet-switched network comprises a VOIP network).

Regarding claim 24 (as understood to state the destination endpoint comprise a PSTN endpoint), with reference to figure 11, Karol shows that the endpoint is directly attached to CO network, In addition Karol discloses a telephone connected to an STM (Synchronous Transfer Mode) network, see also column 17, lines 5-7.

Regarding claim 25, the gateway of Karol can be regarded as an enterprise gatekeeper.

Regarding claims 26 and 27, the gateway of Karol handles the traffic in both directions (claimed gatekeeper comprise an inbound gatekeeper (as in claim 26) and an outbound gatekeeper (as in claim 27)).

Regarding claim 28, the gateway of Karol route the traffic either to CO (i.e. STM) network or CL network. Examiner interpreted such feature as being the claimed gatekeeper comprises a translation gatekeeper).

Regarding claim 29, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140, based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38. (Examiner interpreted the traffic situation in the CL and CO as being the claimed selection criteria



Art Unit: 2662

comprises available bandwidth criteria, because the "traffic situation" is directly related to available bandwidth).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8 and 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karol in view of Yang, US 2003/0118006.

Regarding claims 8 and 30, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 (claimed enterprise gatekeeper), based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

However, Karol doesn't specify that determining bandwidth criteria comprises whether a number of call counts processed by the CL-CO gateway is above a specified threshold.

However, Yang discloses a switch routing traffic to either a circuit switched network or packet switched network based on bandwidth allocation, wherein the bandwidth is determined on call counts. See paragraph [0030].

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to have the traffic situation criteria in determining the routing of communications depend on the call count as described by Yang so that routing decision would be made on a more deterministic way. The advantage would be better utilization of Karol bandwidth in allocating available bandwidth in both CL and CO networks in accordance with subscriber-specific requirements (Karol, column 2, lines 59-62).

7. Claims 9-18 and 31-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karol in view of Thornton et al, US 2002/0101860.

Regarding claims 9-11 and 31-33, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

Karol doesn't specify that the traffic situation comprises network resources availability (as in claims 9 and 31) and that the resource availability comprises the availability of a network component (as in claim 10 and 32), and that the network component is a network endpoint (as in claims 11 and 33).

However, Thornton discloses that if adequate bandwidth does not exist, e.g., the network is then too congested to fully support the call, the call is routed over the PSTN. [0243], and that the bandwidth availability depends on a gateway to handle the call, see [0074]. (Examiner interpreted the ability for the gateway to handle the call as being the

claimed network resource availability, and a network component as well as a network endpoint).

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to have the traffic situation of Karol depends on the determination of network resources taught by Thornton so that routing of initiated calls of Karol would be routed through the STM network based on more deterministic measurements of the state of the data network. The advantage would be the ability to maximize the usability of Karol network bandwidth, since clear determination of unused bandwidth would be made.

Regarding claims 12 and 34, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

Karol does not disclose the availability of a network endpoint comprises sending, to a gatekeeper, an admission request containing a network address associated with the network endpoint, wherein the gatekeeper is programmed to determine whether the network address associated with the network endpoint is a member of a set of available network addresses.

Thornton discloses the determination of the availability of a network endpoint (gateway) as indicated above with reference to claim 11. In addition, with reference to figure 19, Thornton discloses a gateway 200 sending an address request (ARQ) message to gatekeeper, the gatekeeper then determines if the called endpoint lies in

Art Unit: 2662

the same administrative domain, i.e., Domain A, as the calling endpoint, otherwise the gatekeeper issues an Access Request, containing, e.g., a called directory number for this call, to border element 430 in order to resolve this number into a destination network address for the called endpoint. See paragraph [0281]. Also the gatekeeper provides address translation by translating between an Alias Address (phone number) of a telephony endpoint and its network transport address (IP address)). See paragraph [0113]. (Claimed sending, to a gatekeeper, an admission request containing a network address associated with the network endpoint, wherein the gatekeeper is programmed to determine whether the network address associated with the network endpoint is a member of a set of available network addresses.

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to determine resource availability in the data network of Karol using the determination method of address resolution as implemented between the gateway and gatekeeper of Thornton so that the state of the data network would be determined in accordance with standard protocols (i.e. H.323 protocol).

Regarding claims 13 and 35, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

Karol doesn't specify that the traffic situation comprises the availability of network component comprises a call mediator.

However, Thornton discloses that bandwidth availability depends on a gateway to handle the call, see [0074]. (Examiner interpreted the ability for the gateway (claimed call mediator) to handle the call as being the claimed availability of network component comprises a call mediator).

Regarding claims 14 and 36, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

Karol does not disclose the availability of the call mediator comprises sending, to a gatekeeper, an admission request containing a network address associated with the call mediator, wherein the gatekeeper is programmed to determine whether the network address associated with the call mediator associated with the network address is a member of a set of available mediators).

Thornton discloses the determination of the availability of a call mediator (gateway) as indicated above with reference to claim 13. In addition, with reference to figure 19, Thornton discloses a gateway 200 sending an address request (ARQ) message to gatekeeper, the gatekeeper then determines if the called endpoint lies in the same administrative domain, i.e., Domain A, as the calling endpoint, otherwise the gatekeeper issues an Access Request, containing, e.g., a called directory number for this call, to border element 430 in order to resolve this number into a destination network address for the called endpoint. See paragraph [0281]. Also the gatekeeper provides address translation by translating between an Alias Address (phone number)

of a telephony endpoint and its network transport address (IP address)). See paragraph [0113]. (Claimed sending, to a gatekeeper, an admission request containing a network address associated with a network endpoint, wherein the gatekeeper is programmed to determine whether a call mediator associated with the network address is a member of a set of available call mediators).

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to determine resource availability in the data network of Karol using the determination method of address resolution as implemented between the gateway and gatekeeper of Thornton so that the state of the data network would be determined in accordance with standard protocols (i.e. H.323 protocol).

Regarding claims 15 and 37, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

Karol doesn't specify that the traffic situation comprises network resources availability of a network component, wherein the network component is a gatekeeper.

However, Thornton discloses that gatekeeper may reject calls from telephony endpoints due to bandwidth limitations in the data network see paragraph [0115]. (Examiner interpreted this feature as being the claimed availability of a gatekeeper).

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to have the traffic situation of Karol depends on the availability of a gatekeeper as taught by Thornton so that calls can be routed through

the STM network of Karol based on gatekeeper call rejection indications. The advantage would be the ability to use H.225 standard signaling in Karol data network as a trigger-metric for representing the "traffic situation" of Karol.

Regarding claims 16 and 38, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38.

Karol doesn't specify that the traffic situation comprises network resources availability of a network component, wherein the network component is a gateway.

However, Thornton discloses that if adequate bandwidth does not exist, e.g., the network is then too congested to fully support the call, the call is routed over the PSTN. [0243]; and that the bandwidth availability is determined by the gateway handling the call, see [0074]. (Examiner interpreted the ability for the gateway to handle the call as being the claimed network resources availability of a network component, wherein the network component is a gateway).

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to have the traffic situation of Karol depends on the determination of a gateway availability as taught by Thornton so that routing of initiated calls of Karol would be routed through the STM network based on more deterministic measurements of the state of the data network. The advantage would be the ability to maximize the usability of Karol's network bandwidth, since clear determination of unused bandwidth would be made.

Regarding claims 17 and 39, Karol discloses that decision to set up CO connections is made at CL-CO gateway 140 based on the user-specified service requirements and the traffic situation in the CL and CO networks. See column 5, lines 23-38. Karol also show an example of data network 300 in which and endpoint is directly attached to a router.

Karol/Thornton do no specify that the traffic situation comprises network resources availability of a network component, wherein the network component is a router.

Thornton, with reference to figure 5, shows a router 18 and 48 belonging to different location for routing traffic through the data network 30. It would have been obvious to an ordinary person of skill in the art, at the time the invention was made to recognize routing calls through the PSTN network based on the routers availability, because a malfunctioning or congested router would be unavailable to perform its routing function and thus a skilled artisan would be motivated to make the "traffic situation" of Karol/Thornton depends on the routers availability.

Regarding claim 18, Karol disclose routing calls away from the data network based on link availability, see column 17, lines 44-62.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hinchey et al, US 2002/0122547; Wellard et al, US (6,510,219);



Art Unit: 2662


Meyerson et al, US (2003/0059005; Chang et al, US 2003/0095541; and Kamani et al, US 2004/0179515.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM  
Examiner  
Art Unit 2662  
December 10, 2004



JOHN PEZZLO  
PRIMARY EXAMINER